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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,092

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EXAMINER

CHOW, YUK

ART UNIT

PAPER NUMBER

2629

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,092	<b>Applicant(s)</b> TOYOZAWA ET AL.	
	<b>Examiner</b> YUK CHOW	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 17, 18 and 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto (US 6,567,066).**

As to **claim 17**, Hashimoto discloses a display device comprising:

a matrix of pixels, a pixel of said matrix of pixels having an electro-optic material between a pixel electrode and a common electrode (see Col. 6 line 54-Col. 7 line 6);

a common driver having an offset circuit (Fig. 5(14), a common voltage generated by said common driver being applied to said common electrode (see Col. 7 lines 7-28),

wherein said offset circuit is charged to an offset voltage at a time of a rising edge of a power supply voltage (Fig. 5, M1 which is connected to VDD and Fig. 6, offset circuit is charged when M1 is on) said offset voltage adjusting a level of said common voltage (Fig. 6( $\Delta V$ )).

As to **claim 18**, Hashimoto discloses the display device as claimed in claim 17, wherein said offset circuit is discharged at a time of a falling edge of said power supply voltage (see Fig. 6, offset voltage  $\Delta V_n$  is discharged at the time of VDD is lowered).

As to **claim 23**, Hashimoto discloses the display device as claimed in claim 17, further comprising:

a vertical driver connected to gate lines of said matrix of pixels (Fig. 1(6));

a horizontal driver connected to signal lines of said matrix of pixels (Fig. 1(3)), said horizontal driver writing a signal voltage to said pixel electrode according to display data (see Col. 4 lines 50-63).

As to **claim 24**, Hashimoto discloses the display device as claimed in claim 23, wherein said level of said common voltage is adjusted with respect to said signal voltage (see Fig. 6( $\Delta V$ )).

As to **claim 25**, Hashimoto discloses the display device as claimed in claim 23, wherein said pixel of said matrix of pixels is located at an intersection of one of the gate lines and one of the signal lines (It's inherent to locate pixels at an intersection of gate line and signal line).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**4. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto (US 6,567,066) in view of Maekawa et al. (US Patent 6,313,819).**

As to **claim 19**, Hashimoto discloses the display device as claimed in claim 18.

However, Hashimoto does not specifically teach wherein said matrix of pixels, said offset circuit, and said start circuit are mounted on an insulating substrate.

Maekawa discloses a liquid crystal display device wherein teaches a display area and a peripheral circuit part for driving the display area are integrally formed in an integrated manner on an insulating substrate (see Col. 4 lines 38-48).

It would have been obvious to one ordinary skill in the art at the time of invention was made to incorporate forming display area and a peripheral circuit on an insulating substrate as in Maekawa into display device of Hashimoto, because circuit complexity can reduced by integration (see Col. 2 lines 38-47).

As to **claim 20**, Hashimoto and Maekawa disclose the display device as claimed in claim 19, wherein said coupling capacitor is mounted on another substrate other than said insulating substrate (see Maekawa Fig. 2(14) and Col. 4 lines 6-15).

As to **claim 21**, Hashimoto discloses the display device as claimed in claim 18, wherein said common driver has a start circuit (Maekawa Fig. 2(15-17)), said start circuit charging a coupling capacitor within said offset circuit to said offset voltage (see Maekawa Col. 3 lines 23-55).

As to **claim 22**, Hashimoto and Maekawa disclose the display device as claimed in claim 21, wherein said start circuit operates only at the time of the rising edge of the power supply voltage and at the time of a falling edge of the power supply voltage, said

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start circuit being in a non-operational state during other times (see Maekawa Co. 3 lines 46-64, start circuit only operate during a precharge period, Fig. 3(T1)).

**5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto (US 6,567,066) in view of Ling et al. (US Patent 6,091,391).**

As to **claim 26**, Hashimoto discloses the display device as claimed in claim 17, the matrix of pixels being within a display area (see Abstract).

However, Hashimoto does not specifically teach a panel having a peripheral circuit and said display area, said panel being switchable between an operational mode and a standby mode; wherein power consumption by said panel in said operational mode is higher than in said standby mode, driving of said display area being prohibited in said standby mode.

Ling discloses a circuit for LCD which can reduce current consumption, wherein teaches a circuit capable of switching between Execute cycle and IDLE cycle (see Col. 3 lines 11-31).

It would have been obvious to one ordinary skill in the art at time of invention was made to include a switch circuit as in Ling into display device of Hashimoto, because this enable reducing power consumption in idle mode (see Ling abstract).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 17-26 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUK CHOW whose telephone number is (571)270-1544. The examiner can normally be reached on 8-6 M-TH E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. C./

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629